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AUTHOR Loadman, William E.
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ABSTRACT

The Student Information System (SIS) is designed to provide a longitudinal data base about students matriculating at and graduating from the College of Education at Ohio State University. The SIS has four basic purposes: (1) to document student experience for accountability and accreditation purposes; (2) to diagnose student progress for general student advising and counseling functions; (3) to collect data about students and programs for evaluation of both graduates and programs; and (4) to research the nature of teacher education and teacher development and other professional personnel programs. This report contains a description of the SIS. A matrix display illustrates how information is obtained on each student at three stages of their careers: (1) preprofessional; (2) preservice professional; and (3) inservice professional. A summary report of the 1982-83 results of the National Teacher Examinations administered to graduating seniors is included, as well as the Executive Summary Follow-up Survey of Teacher Education Graduates 1978-79, 1980-82, and 1981-82. (JD)

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College of Education

Overview of the Student Information System
Program Evaluation at
The Ohio State University
College of Education

William E. Loadman, Ph.D.

The Ohio State University
Columbus Ohio, 43210

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Program Evaluation at The Ohio State University

William E. Loadman

Rationale

Within the last three years, the College of Education at The Ohio State University has been working on the creation and implementation of a system for documenting and assessing the experiences and abilities of all teacher candidates, toward the improvement of its teacher education programs. Initially this system was created because of dissatisfaction with what has become the accepted means of program evaluation in teacher education; that is, through follow-up studies. The general criticism of this single vehicle for program evaluation is that the results of follow-up studies do not provide conclusive information on which to base continued development and improvement of teacher education programs. Further, their summative nature alone does not provide the kind of formative information necessary for an effective and responsive teacher education program.

One view of program development and improvement requires that developers engage in the ongoing process of "developmental inquiry" (Sanders, 1981), which provides for the generation of hypotheses through a data collection process that informs further development of programs.

Developmental inquiry requires a documentation and assessment system that can provide a rich contextual accounting of both teacher candidates and programs. The intent is first to determine what is happening in the programs, concurrent with determining what should happen. With this perspective in mind the assessment and documentation system was designed and titled the Student Information System (SIS).

At this time, efforts are focused on implementation at the program area level and in those courses (or experiences) that are common for all teacher candidates. The aim is to provide an overall picture of the teacher education program for the College. Instrumentation has been developed, piloted and refined for several of these general professional experiences, and in several of the program areas.

Purposes

The SIS has four basic purposes. They are:

1. to document student experience for accountability and accreditation purposes;

2. to diagnose student progress in programs in order to fulfill general student advising and counseling functions;

3. to collect data about our students and programs for purposes of evaluation of both graduates and programs, toward program improvements; and

4. to research the nature of teacher education and teacher development and other professional personnel programs.

Length of Time in Use

Program evaluation activities in the College of Education at The Ohio State University have a substantial history which can be traced to the pioneering efforts of Ralph Tyler in what has been classically termed the Eight Year Study prominent in the late 1930's and 1940's. The work of Guba in the mid sixties and Stufflebeam in the late sixties and early seventies adds to these prominent activities. With such a legacy, one could anticipate continued leadership in regard to program evaluation. This tradition of innovation and leadership continues with the development and implementation of SIS.

Formal follow-up studies of graduates of the preservice education program were initiated on an annual basis in 1976 as one aspect of program evaluation. In 1980 the SIS was initially conceptualized and expanded the efforts in program evaluation. This system has continued to develop and grow until the present.

Approach

The SIS is designed to provide a longitudinal data base for all students matriculating through and graduating from the College of Education at The Ohio State University. The system is designed to be multi-dimensional, including the collection of data at multiple points in the professional education program, using multiple data collection vehicles to triangulate the perspectives of teacher candidates and campus and field teacher educators involved in the College's teacher education programs.

The context for the system reflects the College's and profession's need to compile more adequate descriptive information about programs and candidates, and to use that data to effectively evaluate the quality of our candidates and the programs they complete, as well as to improve the on-going program development process.

The theoretical framework for the evolution of this system is two-fold: (a) the need to improve teacher evaluation by linking knowledge of teacher candidates' abilities to perform in teaching roles (Medley, 1977); and (b) the need to develop systems for the evaluation of teacher education programs that go beyond previous summative follow-up studies to a more formative process of data-based program development (Sanders, 1981).

As can be seen on the matrix display, information is obtained on each student at three general stages in their careers: (a) preprofessional; (b) preservice professional; and (c) inservice professional. These stages are presented on the horizontal dimension of the matrix. The vertical dimension of the matrix represents the following types of information: (a) descriptive; (b) assessment; (c) narrative; and (d) contextual. The cells within the matrix identify the specific data which is collected. As can be readily inferred, the system is large and complex. Substantial resources are necessary to operate this system; at times the logistics behind the system are staggering. The system includes observational, performance, assessment and survey data, thus getting multiple measures and perspectives on each student. The system continues to be developed, implemented and refined.

Sources of Data

As indicated on the matrix, there are many and varied sources of data being used in the system. These include high school records, faculty assessments, standardized exam performance, student self-assessment, supervisor assessment, cooperating teacher assessment, and university documents. The data sources are designed to be multifaceted and triangulated where possible.

MATRIX OF THE
STUDENT INFORMATION SYSTEM
College of Education
The Ohio State University

1/84

PERSONAL DATA 1	ENROLLMENT DATA 2	DEGREE DATA 3
1. SSN 2. Full name 3. Current address 4. Citizenship 5. Date of birth 6. Employment 7. Sex 8. Marital status 9. Race 10. Physical impairment	1. Year of most recent admission 2. Quarter of most recent admission 3. Current enrollment status 4. College 5. Major 6. No. of qtrs, enrolled in program 7. Total hrs. failed at O.S.U. 8. Hrs. earned in a given quarter	1. Date expected 2. Degree 3. Degree received 4. College 5. Date received

TEACHER EDUCATION PROFILE PROGRESSION
DATA COMPONENTS

STAGES	I. DESCRIPTORS (factual descriptors of department, enrollment, courses, experiences, decisions)	II. ASSESSMENT (1) psychological characteristics (2) knowledges (3) skills (4) beliefs (5) combination	III. NARRATIVE (multiple perspective commentary and analysis of experiences)	IV. CONTEXT (descriptions of environment useful in interpreting experiences
A) PRE-PROFESSIONAL	4 High school name High school address Date of graduation Graduating class size Class rank % rank	5 High school GPA (2) ACT (2) SAT (2)	6	7
B) PRESERVICE PROFESSIONAL	8	9	10	11
General Education	Course information	Course grades (2)		
Elective Courses	12 Course information	13 Course grades (2)	14	15
Freshmen Early Experiencing Program	16 Course information Credit hours OSU campus Field placement Bioinventory End of quarter questionnaire	17 MBTI (1) PRF (1) Course grades (2) Exploration profile (TCP) (3) End-quarter eval. (5)	18 Personal growth plan Critical event form	19
Professional Introduction	20 Course information Credit hours OSU campus Field placement	21 Course grade (2) Teacher candidate profile (TCP) (3) Common exam (2)	22 Critical event form	23
Special Methods	24 Course information	25 Course grades (2) TCP* (3)	26 Critical event form*	27
Foundations	28 Course information	29 Course grades (2)	30	31
Content Specialty Courses	32 Course information	33 Course grades (2)	34	35
Student Teaching	36 Course information Field placement	37 TCP* Observation scale Supervisor recom. (5) Course grade (5)	38 Critical event form*	39
Qtr. of Graduation	40	41 NTE (2)	42	43
C. INSERVICE PROFESSTIONAL	44 Follow-up demographic survey	45 GRE (2) Follow-up demographic survey (5) Follow-up observation Follow-up supervisor survey	46 Follow-up interview Follow-up supervisor interview	47

*Under development

October, 1983

THE OHIO STATE UNIVERSITY

COLLEGE OF EDUCATION

Summary Report of the 1982-83 Results of the National Teacher Examinations

Introduction

This summary reports the results from the second annual administration of the National Teacher Examinations (NTE) with groups of graduating seniors from The Ohio State University College of Education. The 1981-82 test was conducted with Autumn Quarter graduates and the 1982-83 test with Spring Quarter graduates. This report presents the results from the total 1982-83 test group.

In November 1982 the four NTE common Examinations: professional education; English; social studies, literature, and fine arts; and science and mathematics (3 hours, 15 minutes total test time) were replaced by the Core Battery. Therefore comparisons between the two years of performance assessment are not straightforward. The Core Battery consists of three tests: Professional Knowledge, General Knowledge, and Communication Skills, each of which is two hours long. The 1982-83 administration covered only the Professional Knowledge test and the Specialty Area tests. The Professional Knowledge test is designed to determine the student's knowledge of teaching skills and practices (pedagogy). In addition, students take the specialty area exam in their respective areas of preparation, e.g., English education majors take the English Specialty exam, mathematics education majors take the mathematics exam, etc.

1982-83 Administration and Results

Sample

Over 500 Spring Quarter graduating seniors representing all College of

Education teacher education programs were informed of the opportunity to take the NTE and that a sample would be selected from respondents. From the 162 (31%) who responded 100 were randomly selected from the program areas for which Specialty Area tests are available. After cancellations the number of students who completed the tests was 79 (15%) representing eight program areas. Due to incomplete data on some variables, the number was 76 for the Specialty Area tests and 56 for ACT scores. Table 1 presents the frequency of students taking the exam from eight program areas.

Demographic and Performance Variables

Table 2 presents selected information on the demographic and performance measures. Students age 21-25 comprised 91% of the NTE sample. Those whose ages were 26-35 equaled 8% and only one student (1%) was over age 35. Almost 80% were female. The sample included students from eight program areas including Elementary, English, Exceptional Children, Home Economics, Mathematics, Music, Physical Education and Social Studies. The largest proportion (34.2%) of the sample is from elementary education. The mean GPA for the group is 3.21. Compared to the 1981-82 NTE seniors the GPA's from this group is slightly higher.

ACT scores for this group are also somewhat higher than the 1981-82 NTE group. This year's mean score (22.59) increased by 1.2 points (the national average is 20.0). The breakdown of this year's scores, compared to nationally standardized groups of elementary and secondary education, is well above the national average: 68% of the students scored above the national average; only 7% of the students fell into the lowest quartile on the ACT.[1]

NTE Professional Knowledge Scores

The mean scaled sore of the 1982-83 group of seniors on the Professional Knowledge exam is 666 which according to the national norms ranks at the 72nd

percentile and 10 score points above the national mean of 656. The standard deviation of the scores is 8.4. Table 3 shows the distribution of scores by percentile rank and scaled scores for the average of all students within each program area. Due to revision of the NTE common examinations the tests differ for the 1981-82 and 1982-83 years and therefore are not comparable.

NTE Specialty Area Examination Scores

The NTE specialty area exam was administered to students from eight selected teacher education programs and the averaged performance of students in each program area is presented in table 3. This exam provides a measure of the students' competence in their major area of concentration, i.e., their specialty area. The specialty area exams did not change from the 1981-82 administration and therefore the results from the 1981-82 sample are directly comparable to the 1982-83 sample. The scores are reported in two ways; (a) a scaled score and (b) a national percentile rank. The scaled scores cannot be compared across program areas because each specialty area has its own normative (reference) distribution. Therefore an overall group average has not been computed on this measure. However, the scaled scores and the respective percentile ranks have been generated for each separate program area. Based upon the national norms of the National Teachers Exam, students in the eight College of Education programs scored between the 60%ile and the 87%ile on their respective specialty area exams. The results from the 1982-83 administration of this portion of the NTE are similar to the results of the 1981-82 administration. These results are very positive and encouraging.

Correlation of Demographic Variables and NTE Scores

A Pearson product moment correlation coefficient using the scaled scores showed an extremely high positive relationship ($p. < .001$) among the variables of GPA, ACT, and NTE (scaled scores). Table 4 presents the correlation matrix

for the six demographic and performance variables. Age and sex showed no relationship to measures of performance. The correlation among the GPA, ACT and NTE scores indicates a substantial amount of common variance among the measures, i.e., there is a positive relationship between entrance score performance (ACT), school performance (GPA) and outcome performance (NTE).

Analysis of Variance

Eight one-way analyses of variance comparisons were made. The four dependent variables included the two NTE scores, GPA, and ACT score. Each was analyzed by the independent variables of program area and sex. Only one statistically significant difference was found and it showed that students in one program area scored higher on the Professional Knowledge test than students in one other program area. All other differences were found to be not significantly different.

[1] Amerian College Testing Program. Assessing students on the way to college -- College student profiles: Norms for the ACT assessment (Vol. 2). Iowa City, Iowa: ACT Publications, 1972.

Table 1

OSU College of Education

Frequency and Percent of Graduates taking the

National Teacher Examinations Spring Quarter 1983

Program	Professional Knowledge Test	% by Program Area	Specialty Area Test	% by Program Area
1. Elementary	27	34.2	26	34.2
2. Exceptional Children	11	13.9	11	14.5
3. English	11	13.9	10	13.2
4. Music	9	11.4	9	11.8
5. Physical Education	8	10.1	8	10.5
6. Mathematics	6	7.6	6	7.9
7. Social Studies	4	5.1	3	3.9
8. Home Economics	3	3.8	3	3.9
	79	100.0	76	99.9

Table 2

Selected Demographic Data on Students Taking the National Teachers Exam 1982-83

Age	%
21-25	91%
26-35	8%
36 and older	1%

Mean age = 23.48

N = 79

Sex	N	%
Male	16	20
Female	63	80
	79	

Grade Point Average

mean = 3.21

N = 79

Average ACT Score

mean = 22.59

N = 56

ACT National Averages		% of Local Students Included in National Norm Categories
Top Quartile	76 - 100 %ile	43%
Upper Middle Quartile	51 - 75 %ile	25%
Lower Middle Quartile	26 - 50 %ile	25%
Bottom Quartile	1 - 25 %ile	7%
		100%

Table 3

Performance on Professional Knowledge and

Specialty Area Tests of the National Teachers Exam 1982-83

N	Program Area	Professional Knowledge Scaled Score	Professional Knowledge %ile Rank	Specialty Area Scaled Score	Specialty Area %ile Rank
27	1. Elementary Education	667	74	658	68
11	2. English Education	668	76	637	71
11	3. Exceptional Child Education	672	85	669	79
3	4. Home Economics Education	669	81	683	82
6	5. Mathematics Education	662	62	665	84
9	6. Music Education	658	50	627	60
8	7. Physical Education	663	64	697	87
4	8. Social Studies Education	664	67	610	62
	Group Average	666	72		

Table 4

Correlation Analysis of NTE and

Demographic and Performance Variables 1983

	AGE	SEX	GPA	ACT	SPEC
PROF	.095	.058	.491*	.481*	.614*
SPEC	-.117	-.083	.481*	.484*	
ACT	-.135	-.149	.542*		
GPA	-.048	.074			
SEX	-.028				

*p. <.001

The sample sizes for the correlation coefficient range from a low of 56 to a high of 79.

ACT = American College Test

AGE = Age of Teacher

GPA = Grade Point Average

PROF = Professional Knowledge

SPEC = Specialty Area Exam

SEX = Sex of Teacher

EXECUTIVE SUMMARY

FOLLOW-UP SURVEY OF TEACHER EDUCATION

GRADUATES 1978-1979, 1980-1981, and 1981-1982

COLLEGE OF EDUCATION

THE OHIO STATE UNIVERSITY

OVERVIEW

The following is an executive summary of Technical Report #8 of the Follow-Up Study of The Ohio State University's Teacher Education Programs. The present study is on graduates of the College of Education for the academic years 1978-1979, 1980-1981, and 1981-1982. This study is one in a series of studies on the College of Education's graduates conducted since 1977. These studies are conducted in part to meet the standards of the National Council for the Accreditation of Teacher Education (NCATE) and the Ohio State Department of Education's standards for evaluating teacher education students.

In the past years only a sample of first year teachers were surveyed for the follow-up study; this year in addition to all 1982 graduates, a 20 percent random sample, stratified by program area, of 1978-79 graduates and 1981-1982 were surveyed. This method allows for more accurate comparisons between sample years and allows for assessment, over time, of such factors as satisfaction with employment, usefulness of educational preparation and feelings about the teaching profession. The sample sizes were as follows:

1981-1982	Graduates	961 (entire population)
1980-1981	Graduates	193
1978-1979	Graduates	213

The response rate for each year is:

1981-1982	597	62%
1980-1981	113	59%
1978-1979	138	65%

In addition to the changes in the sampling procedure, changes were made in the data collection techniques. The questionnaire was studied and changes in the wording of certain items were made, other items were eliminated and new items included. The questionnaire was structured to obtain information regarding: present job status; satisfaction with job; student teaching experience; attitudes toward preservice academic training; educational background and aspirations; and demographics.

Statistical Analysis and Reporting

In previous years the data collected from the follow-up questionnaire were analyzed primarily by computing frequencies and percentages for each item. From that analysis a profile was developed of the sample and some comparisons made with the previous year. The analysis for this year was more extensive.

First a chi-square to determine the representativeness of the respondents by program area and sex for each sample year was performed. In addition, descriptive statistics including means, standard deviations, frequencies, and percentages were produced for each item.

From these results a description or profile of the students was developed for each sample year. Comparisons between sample years were made and differences examined using analysis of variance techniques. Comparisons were also made between the following groups within each year:

(1) Program Areas

(2) Teaching Level (elementary, middle, secondary)

(3) Sex

(4) Current Employment Subgroups

Results

The follow-up questionnaire yielded a large amount of information about the graduates surveyed from the three sample years. The 1980-1981 sample and the 1981-1982 samples both proved to be representative of their populations on both program area and sex. The 1978-1979 sample was representative of its population on the sex variable but not on the program area variable. The nonrepresentativeness on the program area variable was due to the over sampling of small program areas in order to include enough subjects to produce stable statistical results for these program areas. The impact on this situation on the outcome of the study was found to be neglible and therefore the results present a valid profile of graduate of the college. Analyses indicated that there was very little difference among the sample years. In addition, the comparisons made between sex, among program areas (academic majors), employment subgroups and teaching produced some interesting and important findings. Briefly, some of those findings are:

1. The majority of the graduates (75%) are female; yet there has been a progressive increase in the number of males graduates from sample year to sample year.

2. Over 90 percent of the graduates are employed but approximately 1/3 are in noneducation related positions.
3. Although the graduates are generally satisfied with their current positions, those teaching are significantly more satisfied than those in education related or noneducation related employment.
4. The majority of the students (73%) felt that personal initiative was the most important strategy for securing employment.
5. Within the teaching employment subgroup, those individuals teaching the longest were more satisfied with their jobs than the more recent teachers.
6. The location of the graduates' current teaching positions can be grouped into the following community types:

Urban	25%
Suburban	35%
Rural	41%

7. Fifty-five percent of the teachers are teaching at the senior high level; 27 percent are teaching at the elementary level and 18 percent at the junior high level.
8. Sixty-six percent of the teachers felt that supervision of extracurricular activities is voluntary and 55 percent of the teachers actually supervisor extracurricular activities.
9. Generally, the graduates reported their student teaching experience to be quite successful. For example, 98% of the graduates rated their experience as somewhat successful or successful; 88 percent reported having a good or very good relationship with their cooperating teacher.

10. Seventy-five percent of the students completed all four years at The Ohio State University.
11. Approximately 50 percent expressed a desire to obtain an advanced degree in education; another 25 percent plan to obtain one in a noneducation field.

Because the samples, primarily, were representative of their populations, these findings can be generalized with confidence to the target populations of College of Education graduates or specific program areas. The complete Technical Report of the follow-up process and findings can be obtained from William Loadman at (614) 422-1257. In addition, individual program area results can also be requested.

1/19/84